

Title (en)

Vaporizing device for CVD apparatus

Title (de)

Verdampfungsvorrichtung für CVD-Vorrichtung

Title (fr)

Dispositif de vaporisation pour appareil CVD

Publication

**EP 1038988 A2 20000927 (EN)**

Application

**EP 00106247 A 20000322**

Priority

JP 8149999 A 19990325

Abstract (en)

A vaporizing device for CVD source materials comprising: a vaporizer (8) for vaporizing introduced CVD source materials through heating, a spray nozzle (7) the end portion of which is fixedly attached to the vaporizer (8) for spraying the CVD source materials into the vaporizer (8), a cooling mechanism (19, 20) for cooling the spray nozzle (7), and heat conduction restricting means (21) attached either to a fixing portion (25), or provided proximate to a fixing portion of the spray nozzle (7) or the vaporizer (8). The effect can be achieved that generation of non-vaporized residues and particles can be decreased and that improvements in productivity owing to elongation of continuous operation time and decrease in film forming deficiencies can be achieved. <IMAGE>

IPC 1-7

**C23C 16/44**

IPC 8 full level

**H01L 21/31** (2006.01); **B01J 7/02** (2006.01); **C23C 16/44** (2006.01); **C23C 16/448** (2006.01)

CPC (source: EP KR US)

**C23C 16/4486** (2013.01 - EP KR US); **C23C 16/45512** (2013.01 - KR); **C23C 16/45559** (2013.01 - KR); **C23C 16/45563** (2013.01 - KR)

Cited by

EP1211333A3; CN107431015A; EP1473384A1; US7732308B2; US7410670B2; US7027561B2; WO2005026401A3; WO0240739A1; US8584965B2; US9387447B2; KR100865423B1

Designated contracting state (EPC)

DE FR NL

DOCDB simple family (publication)

**EP 1038988 A2 20000927**; **EP 1038988 A3 20030129**; **EP 1038988 B1 20090513**; DE 60042181 D1 20090625; JP 2000273639 A 20001003; JP 3823591 B2 20060920; KR 100377707 B1 20030326; KR 20000076945 A 20001226; TW 486524 B 20020511; US 2001039923 A1 20011115; US 6273957 B1 20010814

DOCDB simple family (application)

**EP 00106247 A 20000322**; DE 60042181 T 20000322; JP 8149999 A 19990325; KR 20000015015 A 20000324; TW 89105033 A 20000320; US 53244600 A 20000323; US 89918301 A 20010706